

Krohn-Hite model 6500 Phase meter
S/N: 214 Service log
26-Dec-2020, Virgil Cheng

History:

- Disassembled for re-capping 30-Oct-2020
- Found all push-button switches faulty – bad contact, contacts oxidized due to aging
 - Requires extensive disassembly to replace
- Sourced suitable switches and capacitors Nov-2020
- Service work resumed Dec-2020

Symptoms:

- Unit able to power up
- Rightmost display digits shown 8/9/a/b/c/d/E/F instead of decimal 0-9
- Channel B did not respond to signal range selector

Services/Failure analysis:

- Re-cap all electrolytic with 105°C long life parts, including those inside meter module
- Replace all push button switches with C&K F series, fitted with new keycaps (old part had different mech format)
- Calibration push-buttons **replaced with on-off** instead of original **momentary** type
- Replace front panel LEDs, original part was service unfriendly
- Replace switch PCB mechanical mounting standoff, one of two original part was 9.5mm lost during service.
- Cleaned single core wire solder joints, were soldered using corrosive flux
- Test point TP1 DC level abnormal, read -6.25V instead of ~+1V, no AC signal
- Transistor Q220 (JFET 2N4340) faulty, replaced with BF245A -30V sorted for lower Idss (2mA)
- Meter module U12 (SN7475 4-bit bistable latches) pin 9 (4Q) stuck at logic Hi, replaced with 1973 date code ceramic package part, socket added

















